

# *United States Army Logistics Transformation Agency*



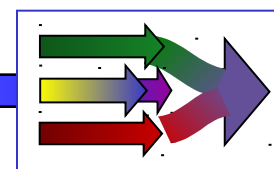
## **CLOE & Aviation**

### **An Information Briefing for Aviation PMs**

**23 October 2003**

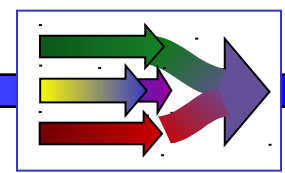
**Logistics Management  
Institute (LMI)  
(858) 756-8875**

**Materiel Logistics Division  
Logistics Transformation  
Agency  
(717) 770-7600**

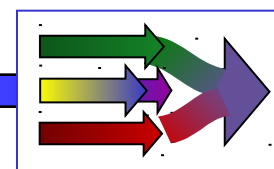


## *Purposes of the Meeting*

- To Tell You About CLOE
- To Learn About Aviation
- To Identify The Major Logistics Transformation Initiatives That Apply To CLOE & Aviation
- To Join Together To Map A Strategy For A Common Operational Architecture For Army Tactical Maintenance

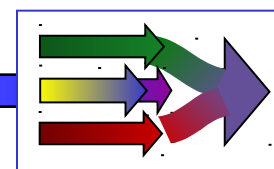


# CLOE OVERVIEW



## *What is CLOE?*

- CLOE is the G4's Program for addressing the synchronization and integration of sustainment doctrine & technology.
- CLOE is the Army's approved overarching concept for interoperability of enablers in Logistics Transformation
- The operational architecture at any point in time that enables sustainment interoperability of a mixture of force elements on the battlefield



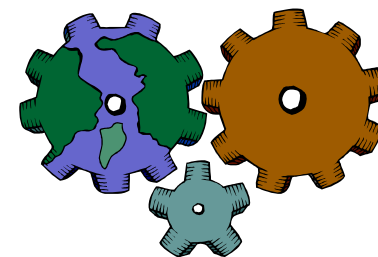
## *CLOE Purpose*

The Purpose Of CLOE Is To Ensure Sustainment Interoperability Among Self Reporting, Self-Diagnosing Platforms And The Future Force Sustainment System Network To Provide The Highest Possible State Of

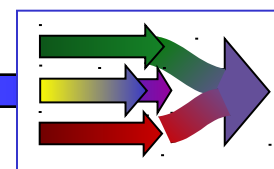
***Operational Availability***

***Mission Capability***

***Combat Power***

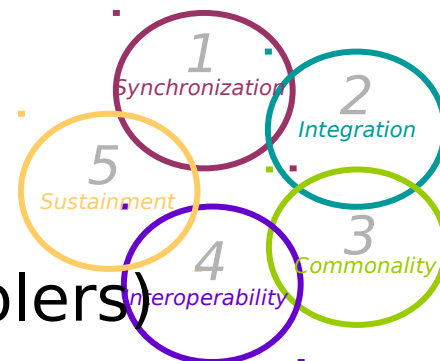


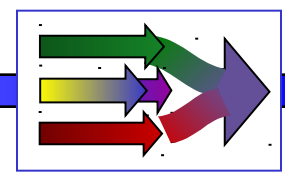
While Reducing The Logistics Footprint



# CLOE SCOPE

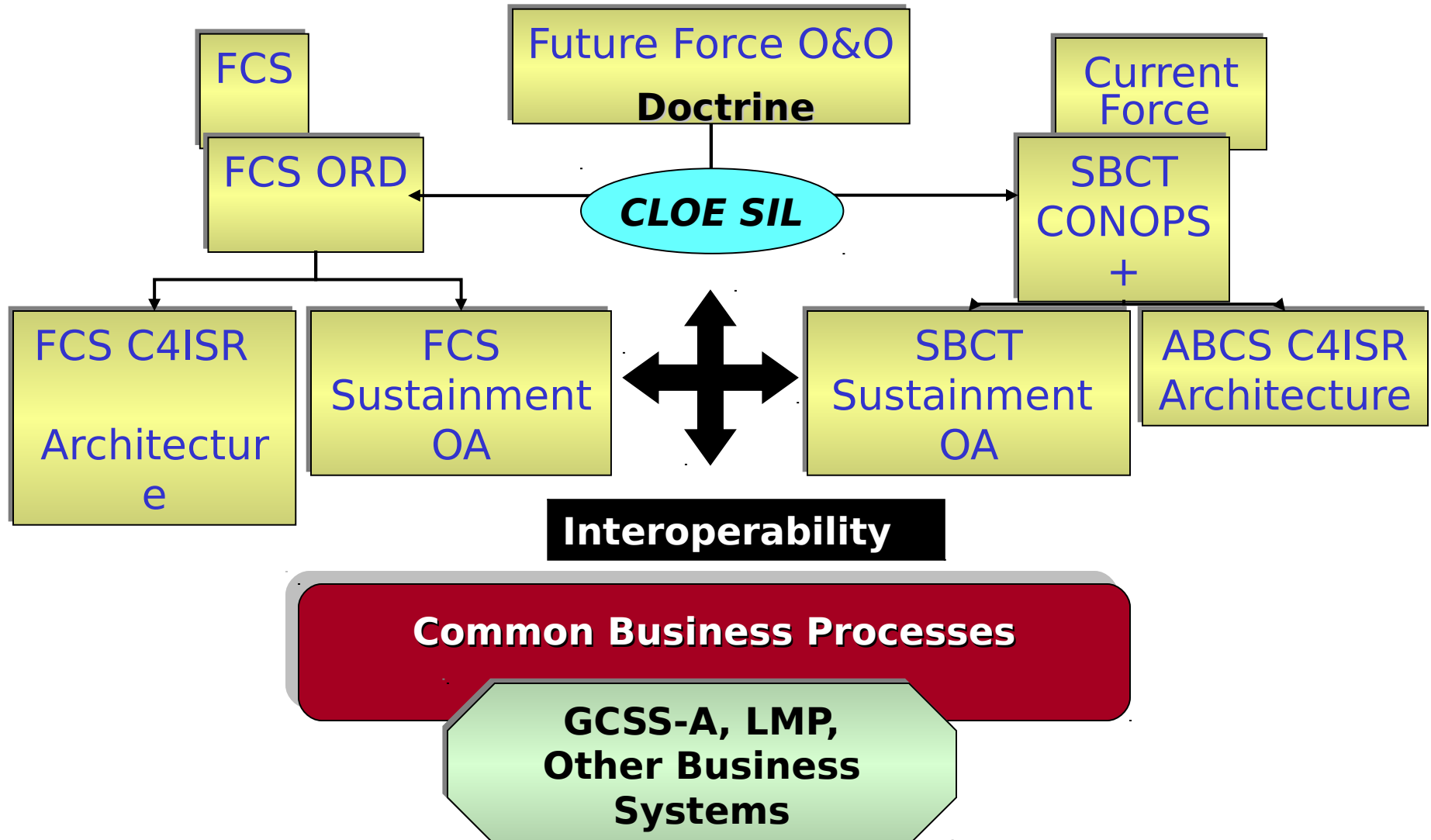
1. Synchronization of Evolving
  - *Doctrine & Technology*
  - *Business Processes*
2. Integration of Technology (Enablers)
  - *Across Commodities*
    - *Platform, Comms, Log*
3. Commonality
  - *Standards, Specifications & Protocols*
    - *Data Management*
    - *Configuration Management through a CCB Process*
4. Interoperability
  - *Current & Future Forces*
    - *Networked Sustainment Environment*
5. Sustainment
  - *PM Support - Life Cycle Management*



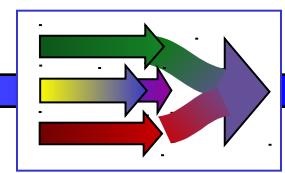


# CLOE SCOPE

*Synchronizing & Integrating Sustainment Doctrine & Technology*



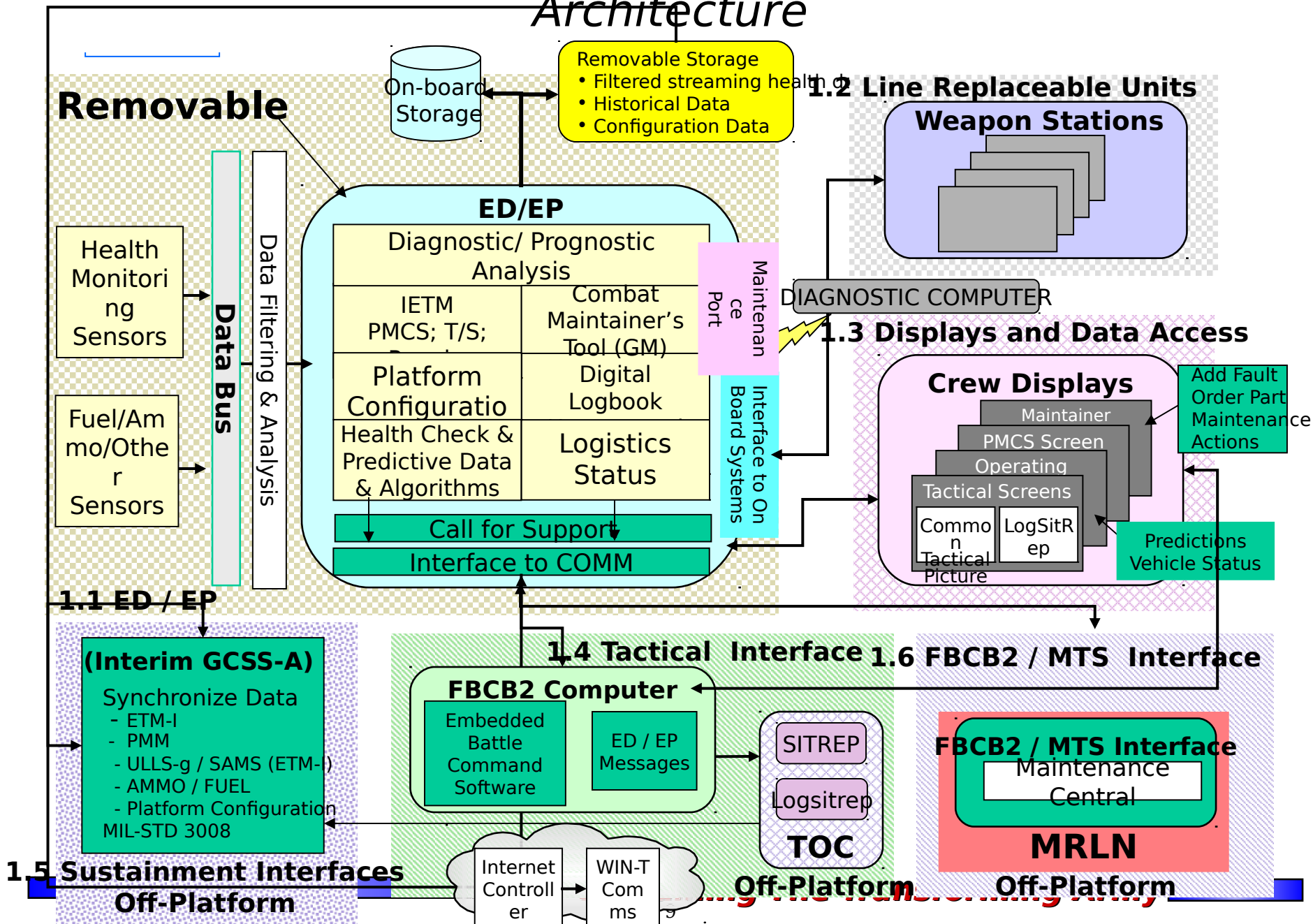
***Sustaining The Transforming Army***

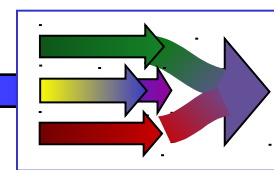


# CLOE ARCHITECTURE



# CLOE Enablers Demonstration – The Stryker Experiment Architecture

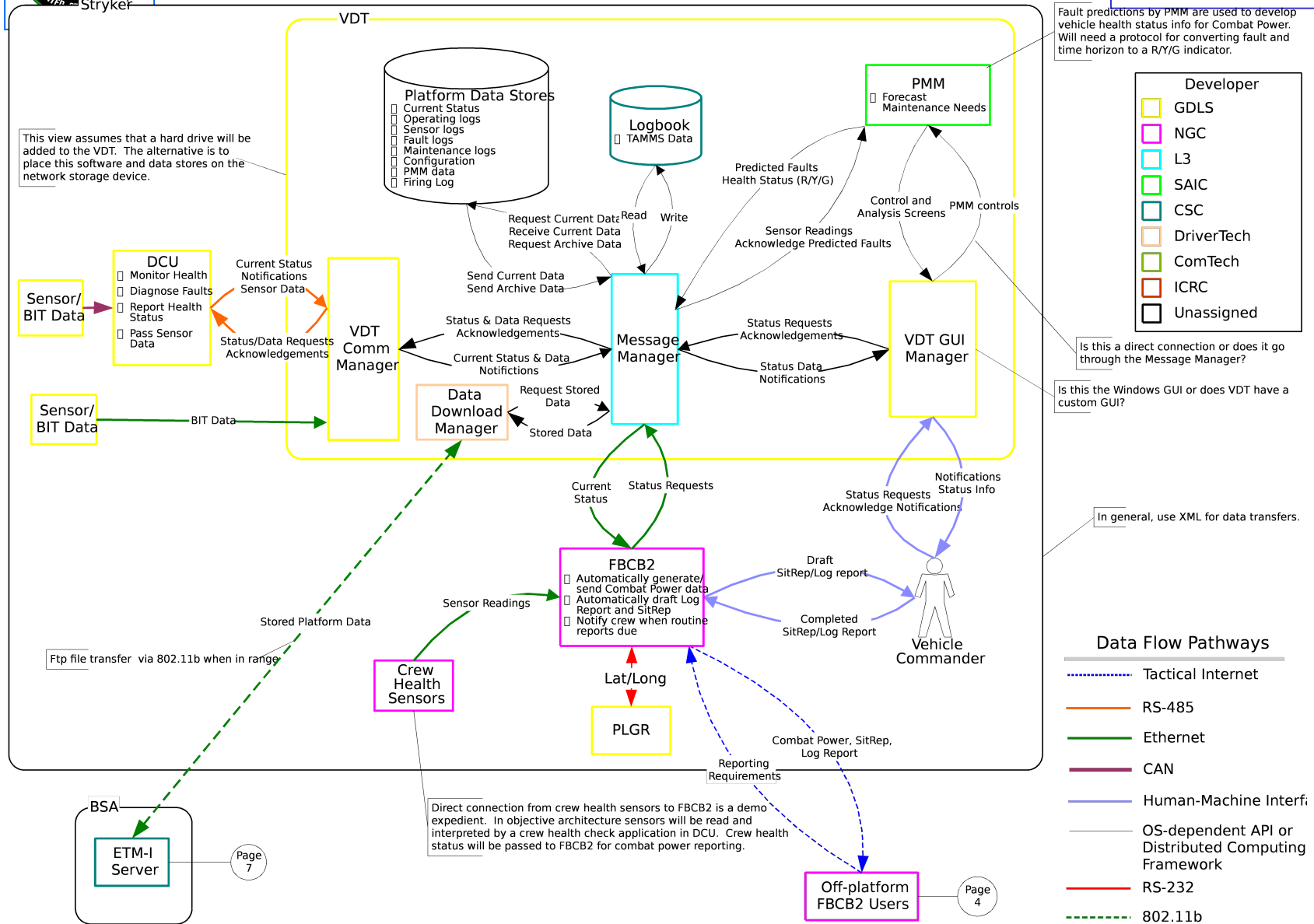
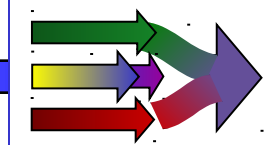


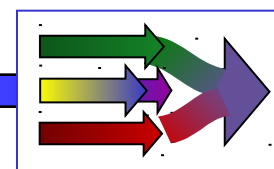


# CLOE INFORMATION FLOWS



## Operational Status Reporting Data Flows on Stryker





## *CLOE Architecture Versions*

The CLOE Program Starts With the SBCT PoE Operational Architecture and Adds Increasing Scope Until It Encompasses All Army Commodity Areas

**CLOE Ground, Soldier, & Aviation  
GCSS-A OA, (w/FC)**

**CLOE Operational Architecture, 3.0  
Aviation & GCSS-A/T**

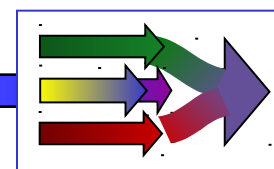
**CLOE Ground & Soldier  
(w/FC)**

**CLOE Operational Architecture, 2.0  
ICS3 & Soldier Systems**

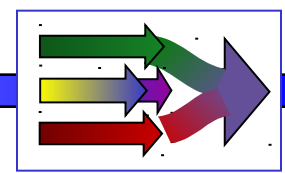
**CLOE Ground  
(SBCT & Current)  
STAN**

**CLOE Operational Architecture, 1.0**

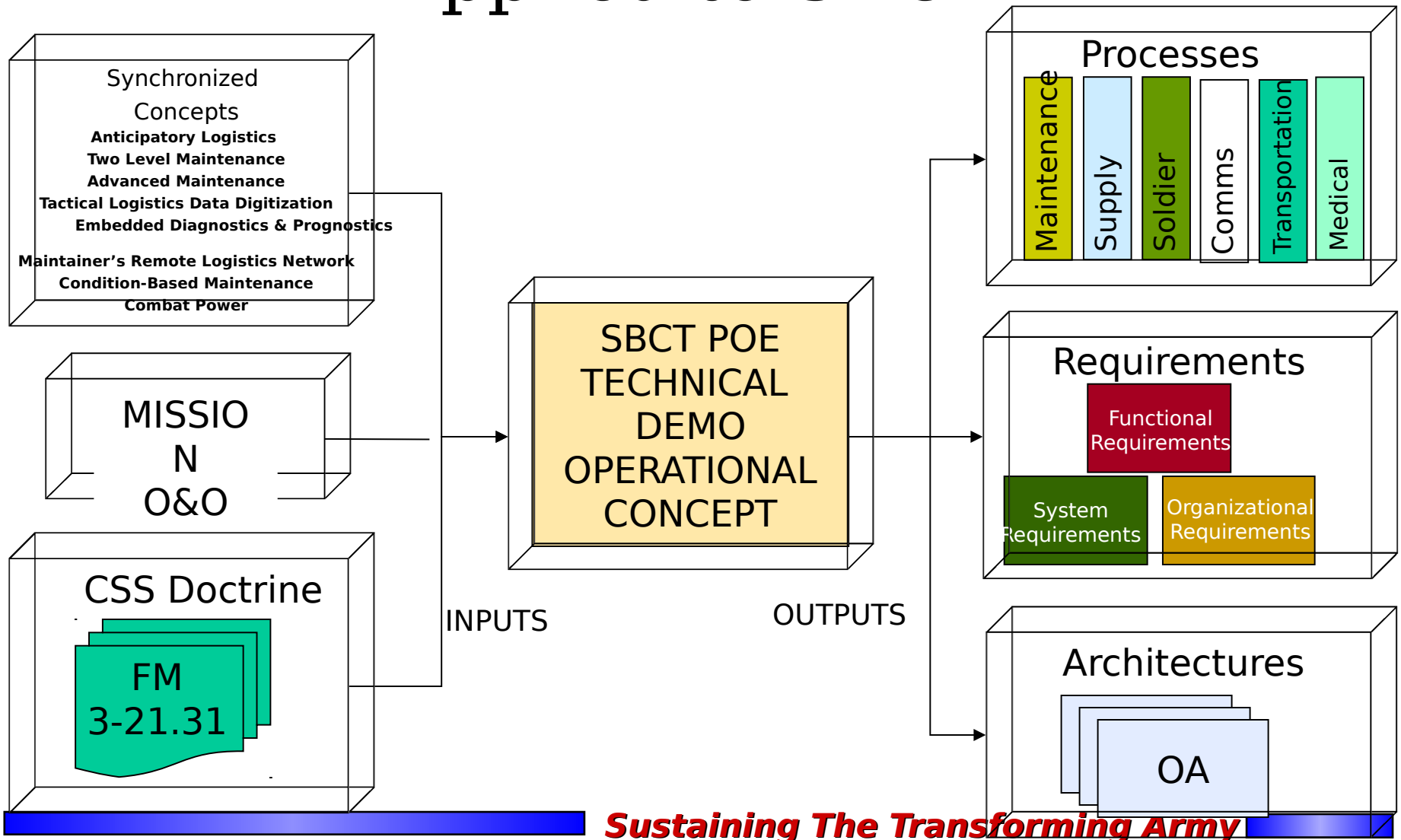
**SBCT OA**

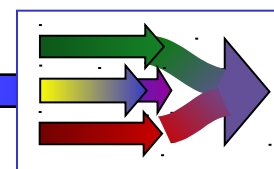


# CLOE and the SBCT Proof of Enablers Operational Architecture with a Technical Demonstration



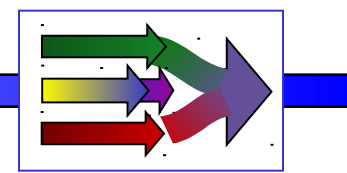
# Synchronization Model, Applied to SBCT





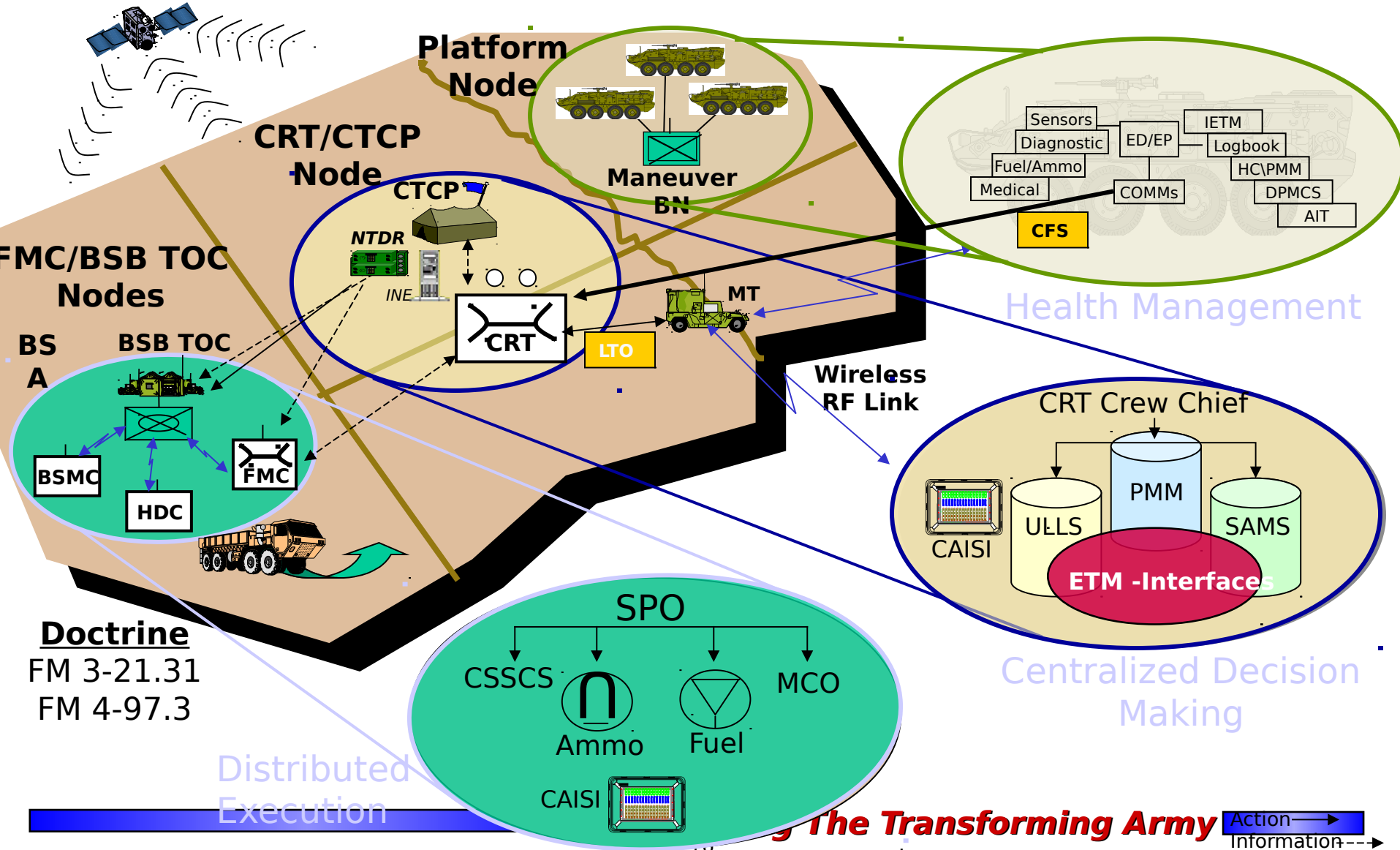
# Platform



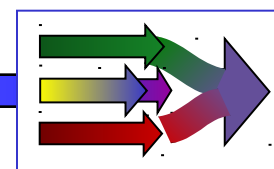


# Demo Operational Architecture

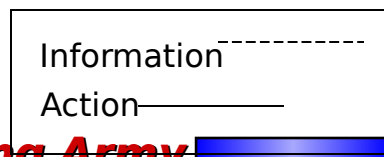
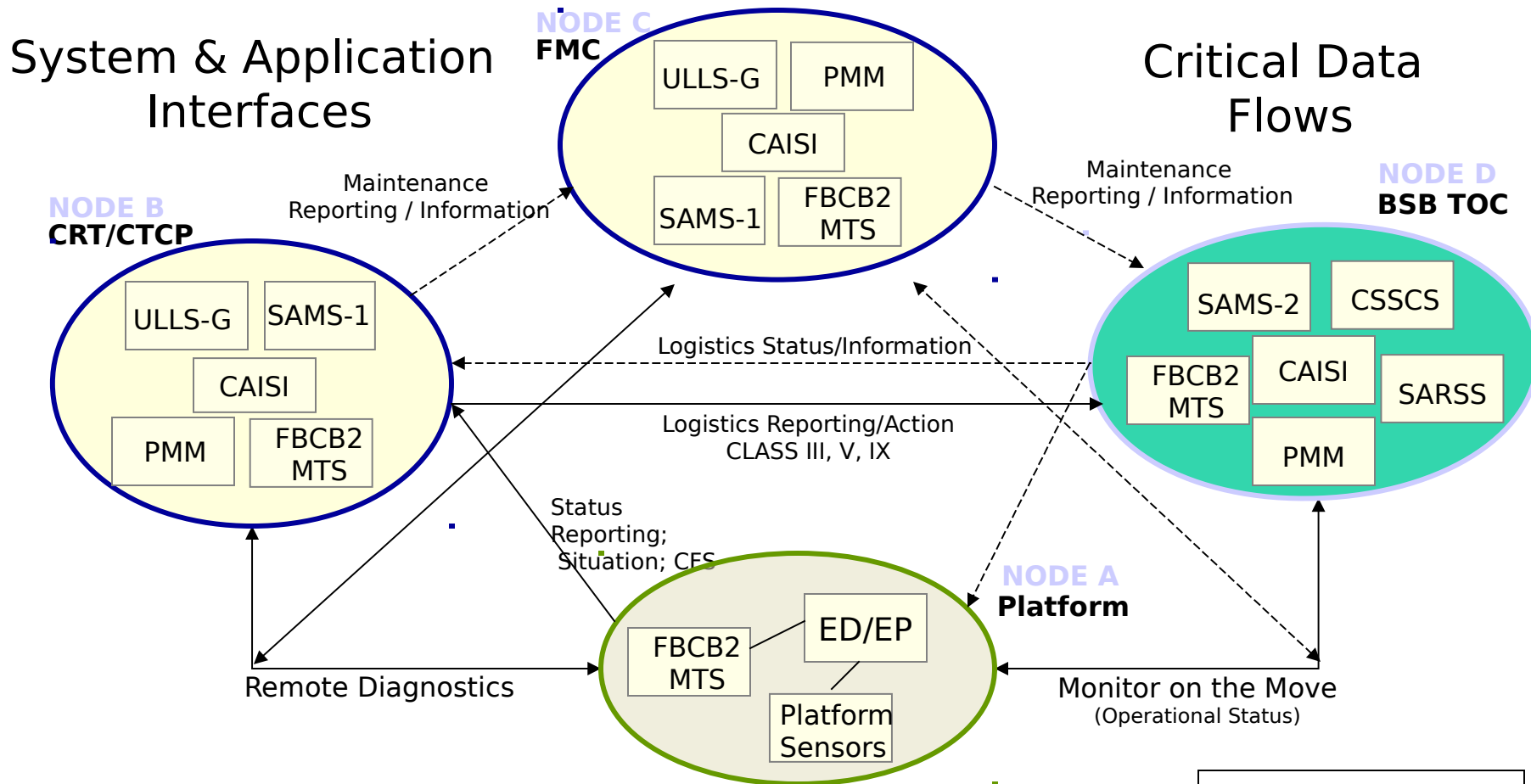
## The Foundation CLOE Builds Upon

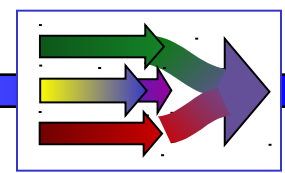




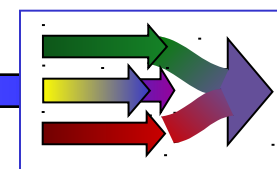


# Demo System Architecture (SA)



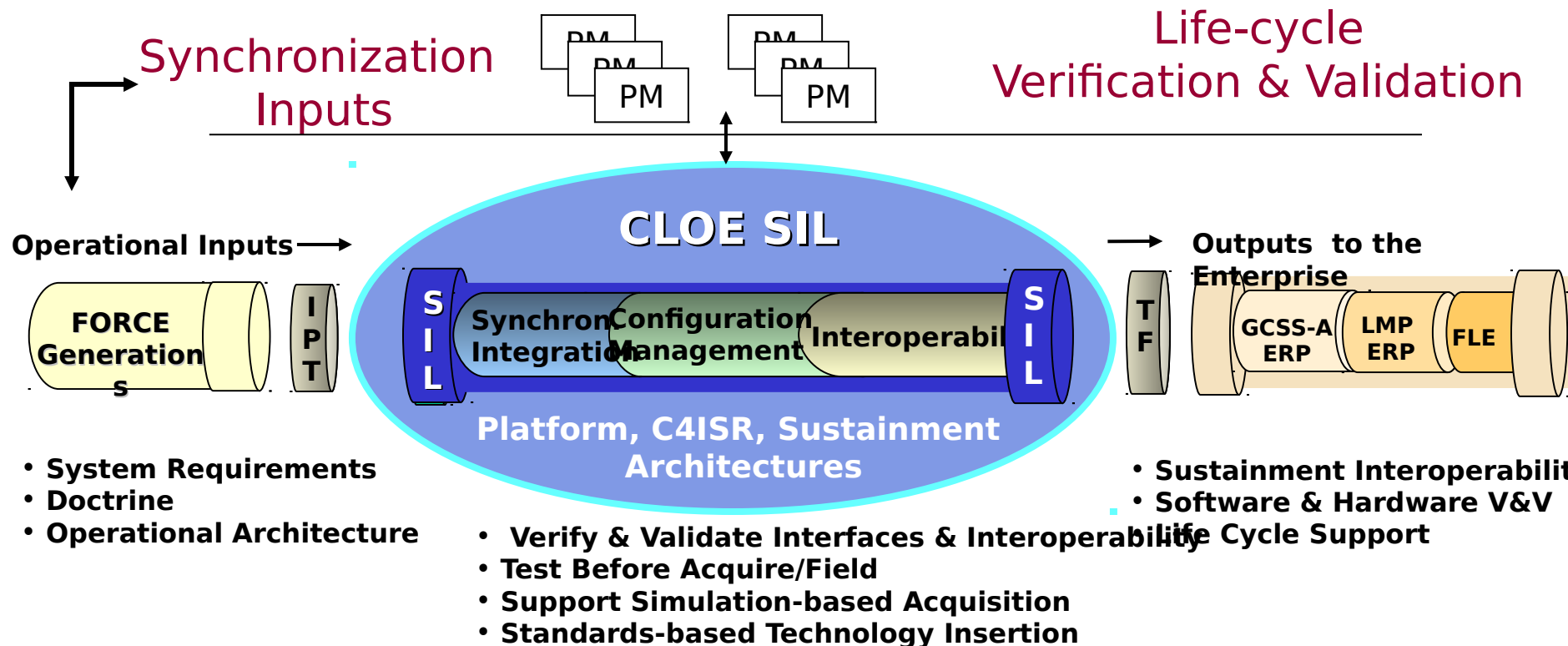


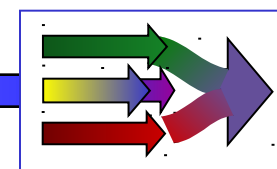
# The CLOE Systems Integration Laboratory (SIL)



# CLOE Systems Integration Lab

**The CLOE SIL Operates as a Meta-Laboratory, Ensuring Interoperability Across All Equipment Force Generations**





# The CLOE SIL

## Levels of Operation

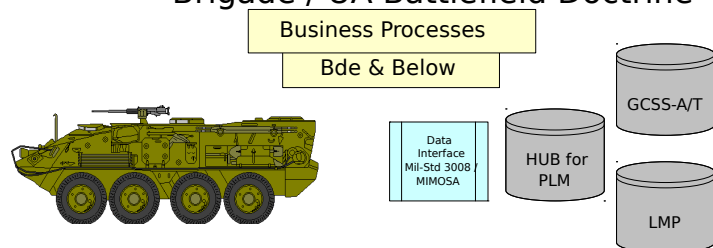
### LIFE-CYCLE

\$

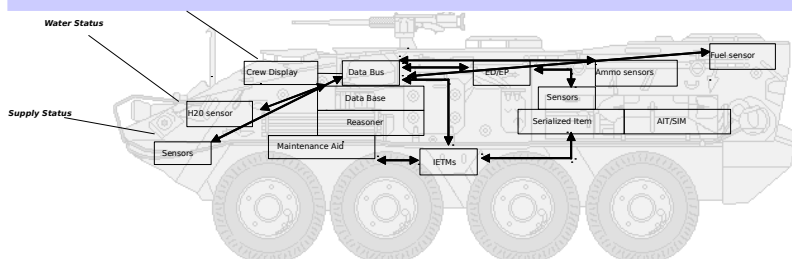
Life-Cycle Costs (LCC) & Cost Trades

### BUSINESS PROCESS

Brigade / UA Battlefield Doctrine



### TECHNOLOGY



## Benefits to the PM

### ■ System Life-cycle:

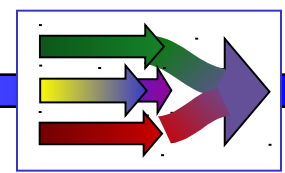
- Test Proposed Hardware & Software
  - Impact Of Tech Trades On LCC
- Provide Input to POM

### ■ Business Process:

- Ensure Business Process & Doctrine Compatibility for Tactical Maintenance On the Future Force Battlefield
- Ensure Platform Systems Interoperate Across PEO Domains
  - e.g. C3, EIS, Aviation, Ground

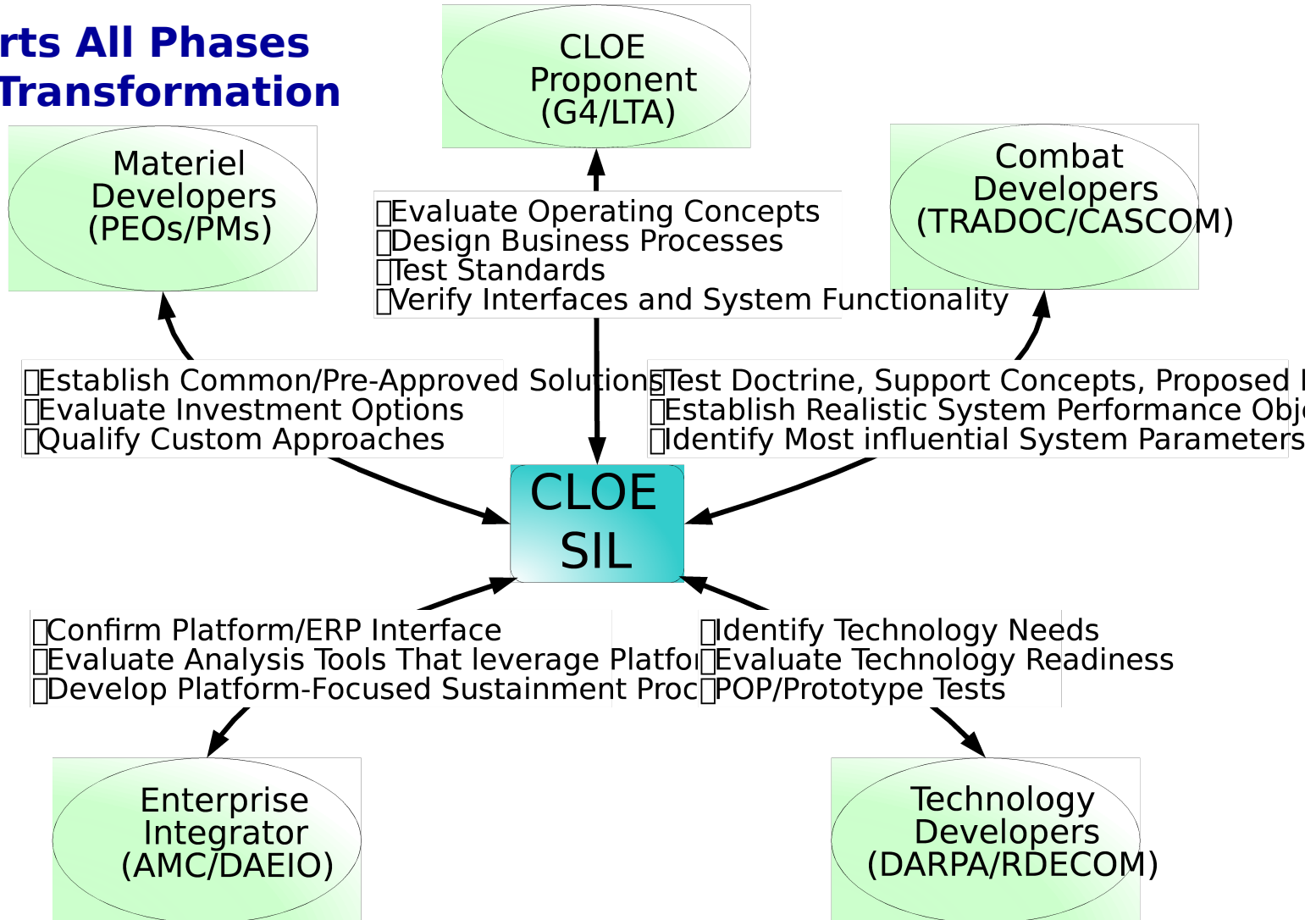
### ■ Technology:

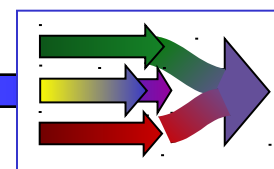
- Identify Platform Data To The Logistics Enterprise
- Recommend Standards, Specs, and Technology Solutions To PMs



# CLOE SIL Operation

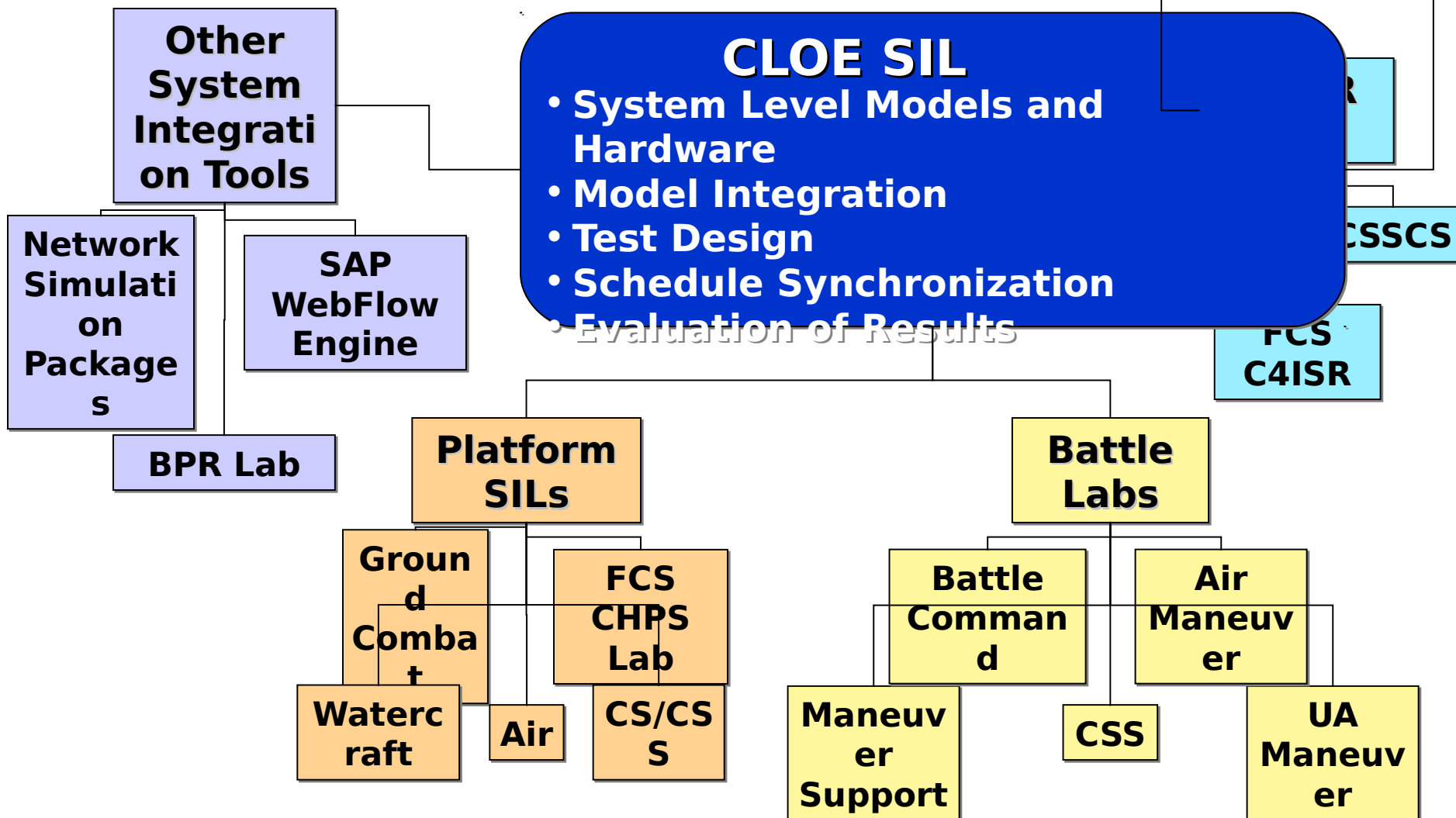
## Supports All Phases of Log Transformation

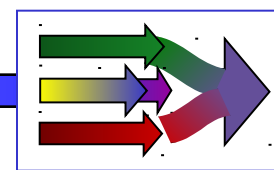




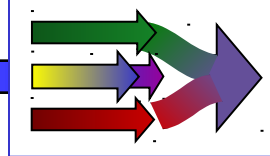
# CLOE SIL Collaboration

## Distributed Logistics Analysis and Testing Environment





# CLOE and Enterprise Integration



# CLOE Complements & Strengthens Logistics Enterprise Integration Processes

**Supports current Legacy and ERP**

**Long term - exists to work requirements and configuration management**

**CG AMC**

**ESC**

**Process Executives**

**PEO EIS**

**DALEI**

**Advisory Board**

**16 July ESC, Mr. Ron Lewis, Enterprise Integration Process, chart 9**

**SASG**

**Synchronization & Integration**

**Architecture**

**Business Area Leads LAISO/CASCOM**

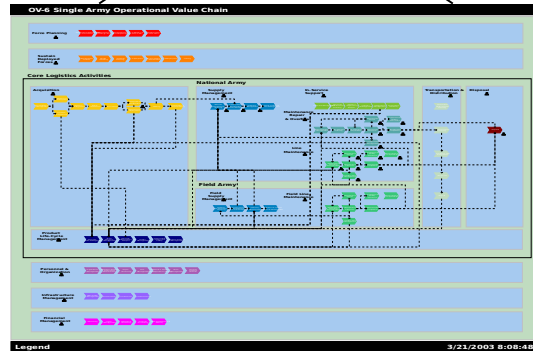
**Implementation Project Team GCSS Army**

**PLM+**

**LMP**

**Business Team Leads (Functional)**

**Implementation/Best Business Practice Consultants**



- Requirements Oversight
- Data Management
- Integration Opportunity Prioritization
- Policy Change Assessment

**Subject Matter Experts**

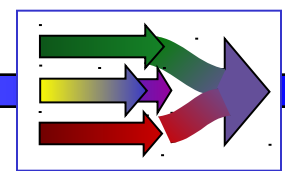
**Cloe**

• Focal Point For Requirements In The CBM Domain

• G-4/LTA Joins Membership In SASG

**Army**





# CLOE Reinforces the SASG

## Functions

1. **Identify and Map External and Other Army Architectures**
2. **Ensure the Architecture supports Transformation, Joint Forces, and Combatant Command Requirements**
3. **Establish and Maintain Standards**
  1. **Business Process**
  2. **Master Data**
4. **Monitor implementation progress against the architecture**

- CLOE Operational Architecture Encompasses 1 & 2 Above
- CLOE is Looking Ahead to FCS Interoperability with LDSS and PS-MRS
- CLOE Has Identified Standards and Protocols for CBM

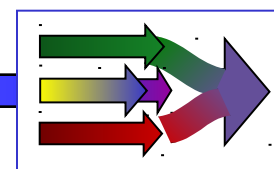
## Tools

- ➔ ARIS tool: Modeling tool to manage Architectures
- ➔ Solution Manager: SAP Business Process Implementation method used by projects
- ➔ Monthly Project IPRs
- ➔ Right Network of Functional Experts

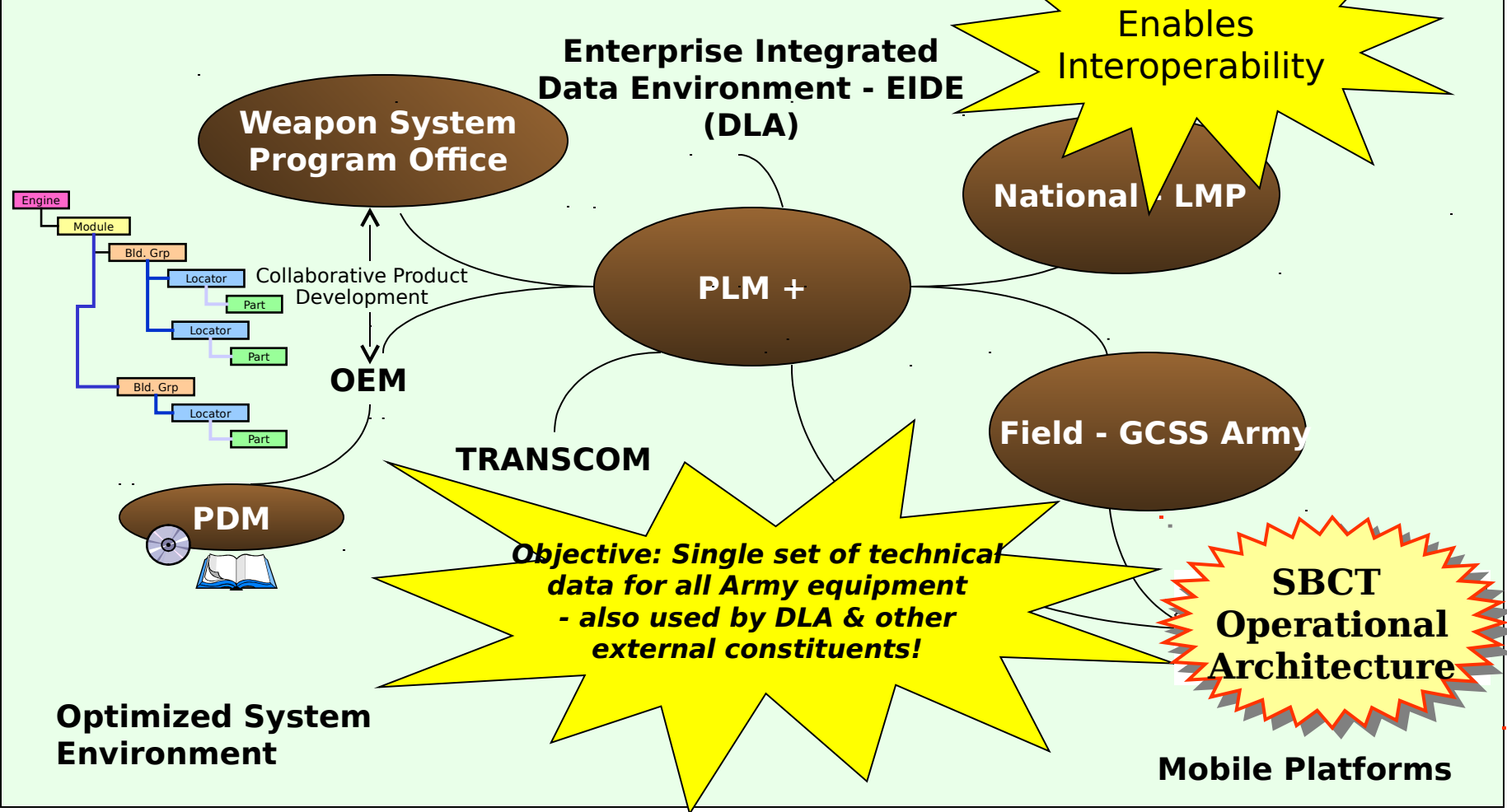
- CLOE Staff Are Participating in The SAP Solution Manager Mapping For Field Maintenance
- CLOE Has A Network of CBM Functional Experts
- CLOE Can Help Identify The Way Ahead



# Platform-To-Hub Technical Data Integration

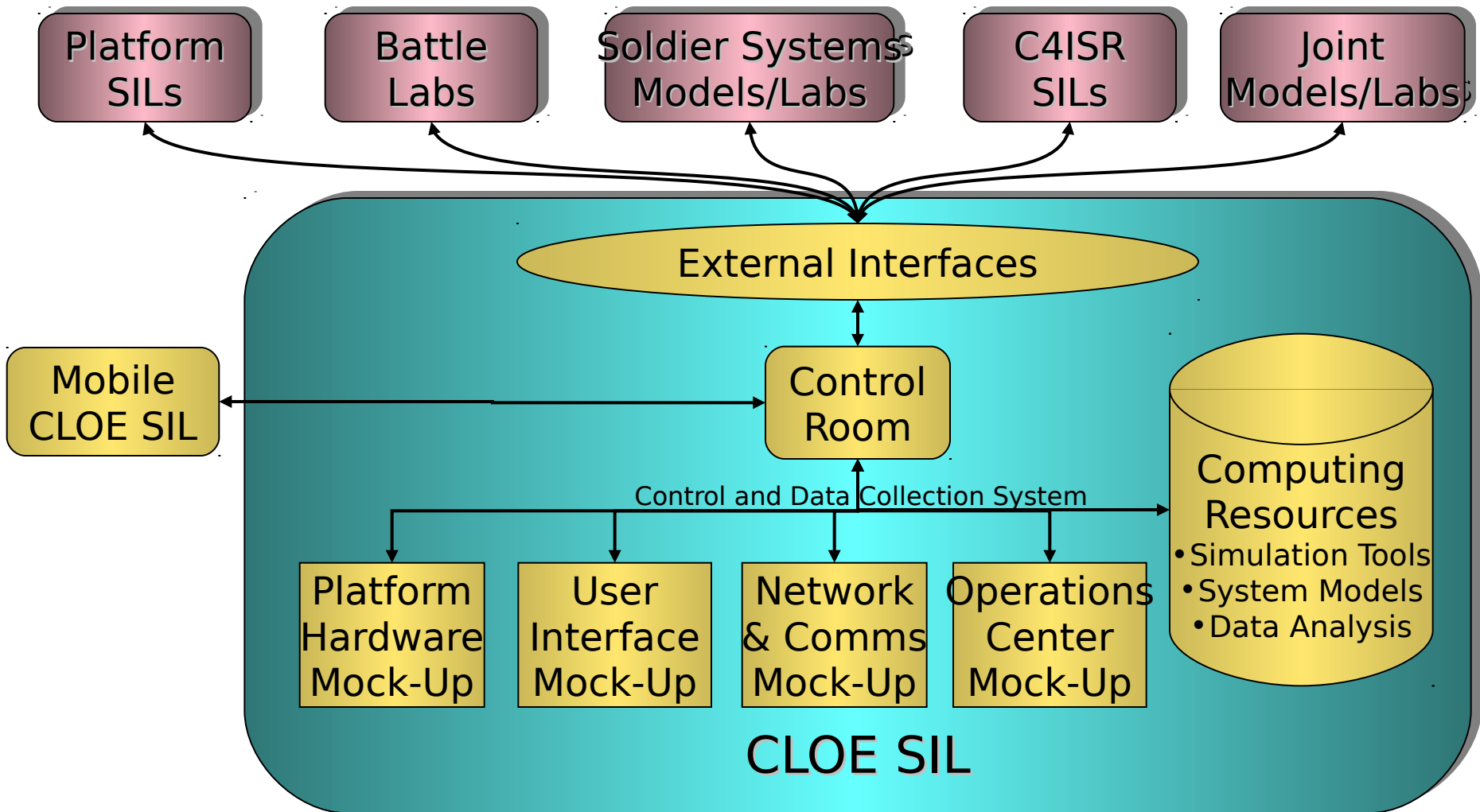
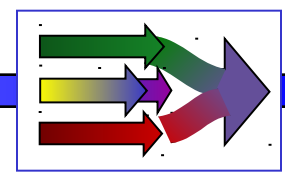


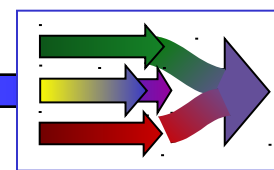
## One Set of Technical Data





# The CLOE SIL Strengthens SASG



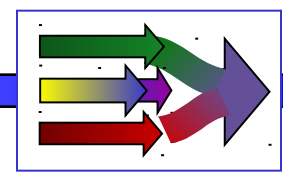


# *CLOE, GCSS-A & SALE*

*(Single Army Logistics  
Enterprise)*



# CLOE and SALE

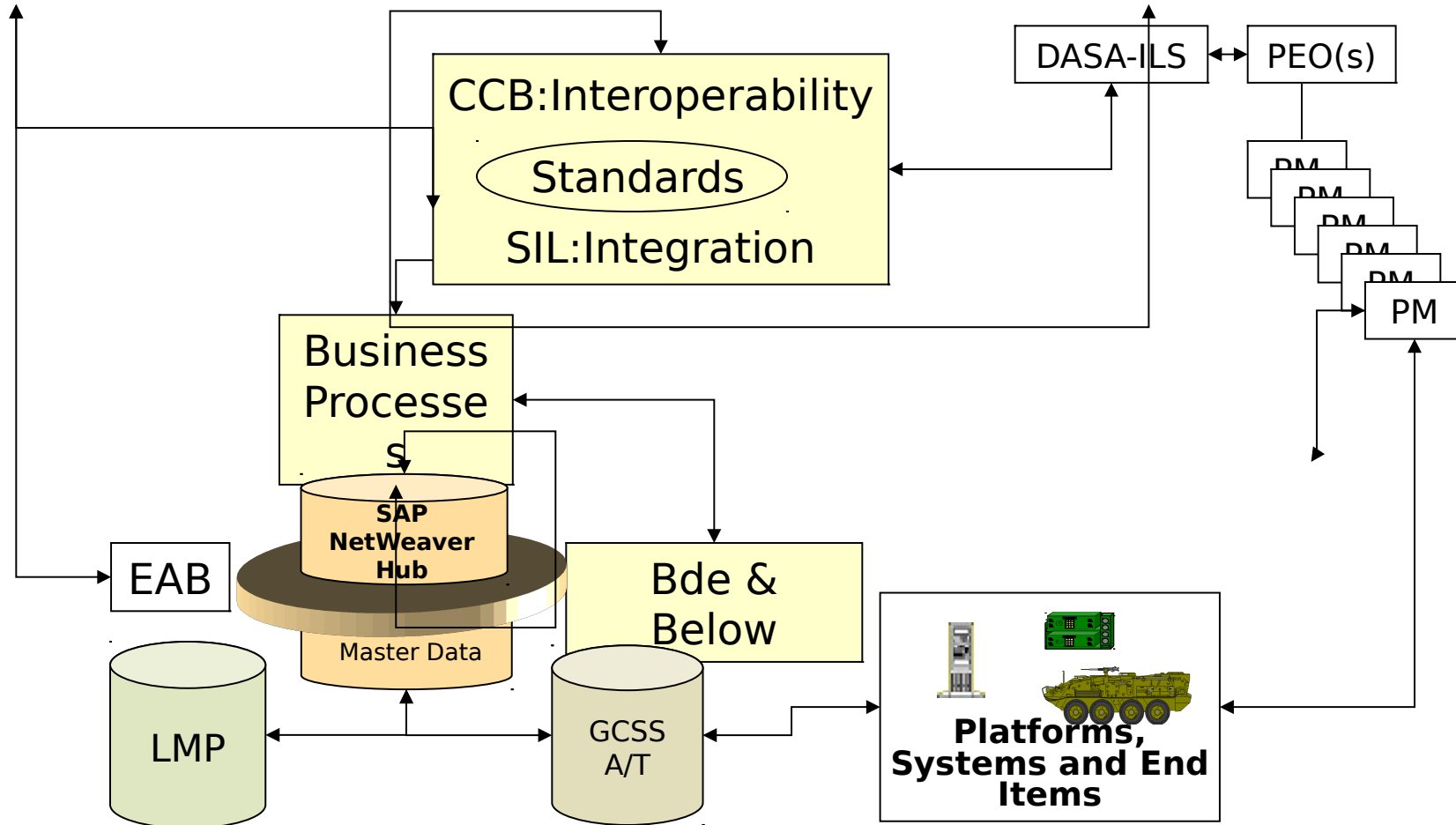


**AMC**

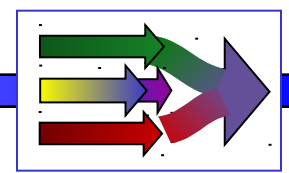
**Enterprise  
Integration**

**G-4/ASA(ALT)**

**Policy Oversight/  
Implementation**



**Sustaining The Transforming Army**



# Synchronizing Sustainment Doctrine & Technology via SALE

Sustainment Interoperability for the  
OF

**CLOE SIL\***



☑ **Product Lifecycle Data Management**

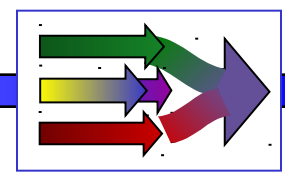
☑ **Master Data Management**



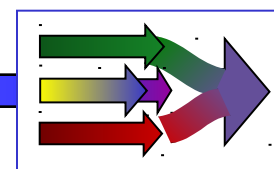
**SAP  
NetWeaver  
Hub**

**Data  
Synchronization**

**LMP**



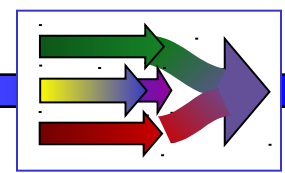
# CLOE and Aviation



# *Synchronization Challenge*

- **DAL**
- **DMAD**
- **AMACS**
- **ELAS**
- **LIMSS-GAS**
- **JATDI**
- **Etc.**





## *DISCUSSION*